



**E**very summer millions enjoy our fun-in-the-sun playground for boating, swimming, fishing and water skiing. Seventeen per cent of Ontario's 412,582 square miles is covered by water.

We take the plentiful availability of our water for granted. Biologists tell us that the natural make-up of our lakes, rivers and streams is being affected by the misuse of water. Remember, modern living standards call on us to use up to 150 gallons a day, against only five gallons used by our pioneer forefathers.

Preservation of our water for recreation depends on a continuing program carried out by YOU and the government.

#### IS OUR WATER IN DANGER?

Last year one northern Ontario lake was found heavily polluted with blue-green algae. Five lakes in central Ontario were found unsafe for swimming due to sewage pollution. A water inspection in 1961 passed these waters as clean and pure! The Ontario Water Resources Commission carries out a continuing study program of all lakes and rivers in the Province for your protection.

Under normal conditions the natural processes of plant and fish life maintain a balanced ecology in our lakes and rivers. When too much human waste or chemicals upset the balance, the normal process is impaired and the quality of our water suffers.

Pollution stems from a variety of sources, but, regrettably, you are the chief contributor to the pollution problem in the recreational lake. You are the resident of one of 250,000 cottages in Ontario. Some 11,000 new cottagers swell your ranks each year. Your role in the preservation of Ontario's water is vital.

OWRC sanitary engineers have investigated numerous causes of pollution from cottages on the shores of Ontario's lakes and rivers. Septic tanks, which should be emptied regularly, can cause an increasing build-up of wastes in soil. Pit privies on rocks a few feet away from a lakeshore and sinks that drain directly into the lake contribute to an unhealthy polluted environment.

OWRC in conjunction with the Ontario Department of Health provides a continuous service to advise cottagers on the installation of waste treatment systems, and to check the effectiveness of installed systems. The staff of the local Medical Officer of Health will advise you on measures for treating domestic wastes to ensure compliance with current regulations.

Booklets illustrating septic tank systems for cottages and larger dwellings are available from the Department of Health or the local health unit.

There is lots of information and advice, but each of us must do our share to preserve our natural heritage.

#### WHAT IS EUTROPHICATION?????

It is the process, natural or synthetic, by which lakes carry on their life cycle. Good lake and river water needs minerals and oxygen -- for plants, insects and fish. These "impurities" cause a natural aging of the lake, and as they accumulate, change its character. Natural eutrophication can take millions of years, synthetic just a few decades.

A lake may, particularly in Canada, start life very deep, clear and cold, containing very little life. As water from the rivers which feed it bring sediment and plants, insects and fish appear. After hundreds of thousands of years -- depending on the lake and its circumstances -- the sediments fill up part of the lake, creating a swamp. Finally, when the sediment fills the lake completely, dry land, often very fertile, is the result and the cycle can start again.

It is a slow and balanced process.

If you do not live in harmony with this balance, and introduce destructive wastes into the watershed, you alter the normal process of eutrophication. Untreated waste discharge may be harmful to plant and animal life.

The use of phosphate-free detergent for laundry and dishwashing is essential if we are to reduce lake plant growth which may cause a sudden growth of algae, creating a synthetic, unbalanced EUTROPHICATION of the water.

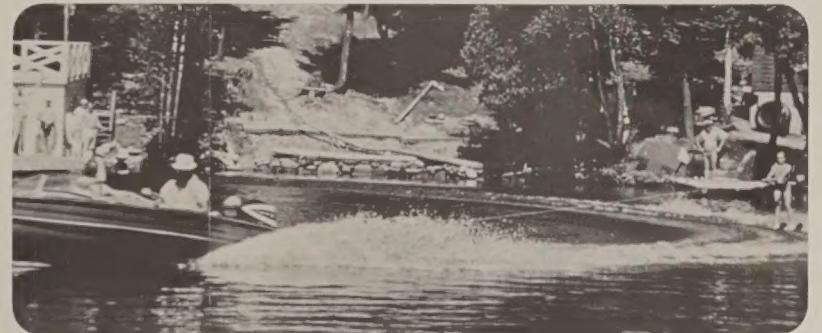
#### A REASON FOR NO FISH!

Phosphates and nitrates cause over-enrichment of our waterways and increase the production of algae.

The miserable, smelly "pea soup" seen in some lakes with extensive cottage development is caused by an over-abundance of "blue-green" algae. When it sinks to the bottom of the lake it rots and uses up the oxygen needed by game fish which live in deeper water during the summer months. They die off and are replaced by tougher and less attractive species of fish.

The fishing haven you enjoy can be protected if such discharges are avoided. It's up to you.

POST IN YOUR  
COTTAGE AS  
A REMINDER



#### CAUSES OF POLLUTION

Human waste. This is the result of faulty privy pits or septic tanks that are improperly installed or not cleaned out regularly.

Kitchen sink waste. The phosphates released in dishwashing and laundering cause algal growth. Too many cottagers are venting sinks into the ground near a lake or river, or even into the waterway itself.

Discharging sewage and garbage into Ontario waters. This is illegal. For example, The Ontario Boating Regulation has been designed to protect against such discharges to our waters. Pleasure craft must have a holding tank or approved treatment device for sewage from the head. Commercial marinas provide pump-out service as well as garbage receptacles.

If you have doubts about sewage disposal please contact a local inspector. He can help you preserve our cool clear water.

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# The Cottagers' World of Water

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#### ENQUIRIES:

ONTARIO WATER RESOURCES COMMISSION  
PUBLIC RELATIONS & INFORMATION  
135 St. Clair Avenue West  
Toronto 7, Ontario  
Hon. George A. Kerr, QC, Minister  
D.J. Collins, Chairman  
J.H.H. Root, M.P.P., Vice-Chairman



#### WE CAN ALL HELP!

The fight against pollution of our waterways requires the co-operation of cottagers, cottage associations, tourist resort owners, campers, marina proprietors, and provincial and municipal governments.

Take positive steps to protect our water for recreational facilities:

\*Check your septic tank or privy. What kind of soil do you have? Sand is more porous than other materials and allows undesirable liquids to seep through further. If your cottage is on rock, is it far enough away from the water? Is it deep enough? A good system needs six to seven feet of soil. Some new equipment uses less water. Your municipal offices, or the local health unit can provide further information and advice.

\*Check your cruiser. If it has a head, you require a holding tank. In addition, all boats must, by law, carry a garbage container to be emptied only ashore. OWRC inspectors, the RCMP, and the OPP, check to see if the boater is complying with the Ontario Boating Regulation to protect Ontario's waterways.

\*Avoid applying insect control materials to water un-

less it is essential and you have obtained a permit from the Ontario Water Resources Commission. Tell your neighbours that this is required. Pollution from DDT can last over 25 years.

\*Check your sink drains so that kitchen wastes do not empty into lakes or rivers. Preferably, kitchen wastes should drain into a septic tank and tile bed system.

\*Use soap flakes or phosphate-free detergents at your cottage. Granulated detergents sometimes contain a higher percentage of phosphates which helps to promote excessive plant growth.

\*Get together with neighbours to agree on joint measures for water protection. On large lakes, sectional groups could be formed within an overall co-ordinating association.

\*Include your children in pollution control. As they grow up, preservation of their environment will become a habit.

\*And above all, remember the preservation of the water quality in our recreational lakes is a multiple responsibility. Provincial agencies are doing their best -- are you?

It's our water, protect it!